

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
17 February 2005 (17.02.2005)

PCT

(10) International Publication Number  
**WO 2005/014802 A1**

(51) International Patent Classification<sup>7</sup>: **C12N 5/06**,  
5/00, A01K 67/00, C12N 15/00, 5/10

(KR). JUNG, Jin Gyung [KR/KR]; 254-405 Jugong  
2 Danji Apartment, Jamshil 2-dong, Songpa-gu, Seoul  
138-222 (KR).

(21) International Application Number:  
PCT/KR2004/001992

(74) Agent: SESHIN PATENT & LAW FIRM; 8th Fl.,  
KFSB Bldg., 16-2 Yeodo-dong, Yeongdeungpo-gu, Seoul  
150-010 (KR).

(22) International Filing Date: 6 August 2004 (06.08.2004)

(25) Filing Language: Korean

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,  
MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH,  
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,  
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(26) Publication Language: English

(30) Priority Data:  
10-2003-0055119 8 August 2003 (08.08.2003) KR

(71) Applicants (for all designated States except US): AVI-  
CORE BIOTECHNOLOGY INSTITUTE, INC.  
[KR/KR]; Hanlim Human Tower #707, Geumjeong-dong  
1-40, Gunpo city, Kyonggi province 435-050 (KR).  
SEOUL NATIONAL UNIVERSITY INDUSTRY  
FOUNDATION [KR/KR]; #222 2nd Fl., Seoul National  
Research, San 4-2, Bongchun 7-dong, Kwanak-gu, Seoul  
151-818 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HAN, Jae Yong  
[KR/KR]; 17-308 Eunma Apartment, 316 Daechi-dong,  
Gangnam-gu, Seoul 135-280 (KR). HONG, Yeong Ho  
[KR/KR]; 105-910 Woncheon Jugong Apartment, 35 Won-  
cheon-dong, Paldal-gu, Suwon-si, Kyunggi-do 442-757  
(KR). LIM, Jeong Mook [KR/KR]; 308-404 Mido Apart-  
ment, Banpo 4-dong, Seocho-gu, Seoul 137-769 (KR).  
LEE, Young Mok [KR/KR]; 101 Oseong Mansion, 9 lot  
33 block, Top-dong, Kwonseon-gu, Suwon-si, Kyunggi-do  
441-440 (KR). LEE, Mak Soon [KR/KR]; 206-8, Pa-  
jang-dong, Jangan-gu, Suwon-si, Kyunggi-do 440-290

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

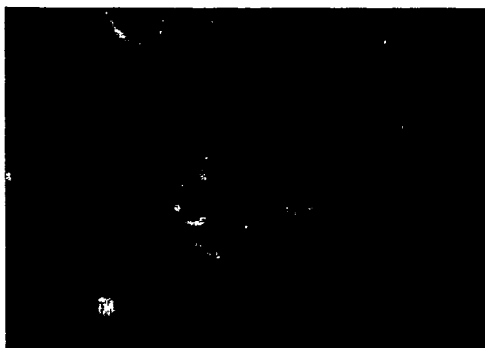
## Published:

- with international search report
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR CULTURING AVIAN SPERMATOGONIAL STEM CELLS AND AVIAN SPERMATOGONIAL  
STEM CELLS PREPARED THEREBY

a)



b)



(57) Abstract: The present invention relates to a method for long-term culturing of avian spermatogonial stem cells, which com-  
prises the steps of: (a) preparing an avian testis; (b) isolating a population of testicular cells from said avian testis; and (c) culturing  
said avian spermatogonial stem cells in said population of testicular cells on a feeder cell layer in a medium containing a cell growth  
factor, a population of avian spermatogonial stem cells and a method for producing transgenic aves.